

Abstract of the Invention

[0119] A method and apparatus for centrifugal casting of metal articles uses a rotating mold body that can be pivoted from a vertical orientation to a horizontal orientation during the centrifugal casting of the metal article. The resulting metal article has a closed end and an open end defining a hollow cavity. The mold body has a closed end that is oriented in a vertical position with the longitudinal axis extending vertically. While the mold body is rotated, an amount of molten metal is introduced into the mold body so that the molten metal is distributed along the closed end of the mold body. In one embodiment, the bottom end of the mold body has a frustoconical shaped surface defining the mold cavity. The mold body is then pivoted to a horizontal position while continuously rotating to distribute and cast the metal against the inner surface of the mold body. In one embodiment, the mold body has a refractory lining of a compacted refractory material. The refractory material is introduced into the rotating mold and a blade is contacted with the layer of the refractory material formed on the inner surface while the mold is rotated in a first direction to compact and densify the layer of particles with a flat end of the blade. The rotation of the mold body is then reversed and the sharp edge of the blade is contacted with the compacted layer to shape and contour the mold lining.